2006-08 ENGINE

Engine Block - Civic GX

COMPONENT LOCATION INDEX

NOTE: Refer to the ENGINE BLOCK (EXCEPT HYBRID) article for items not shown in this section.

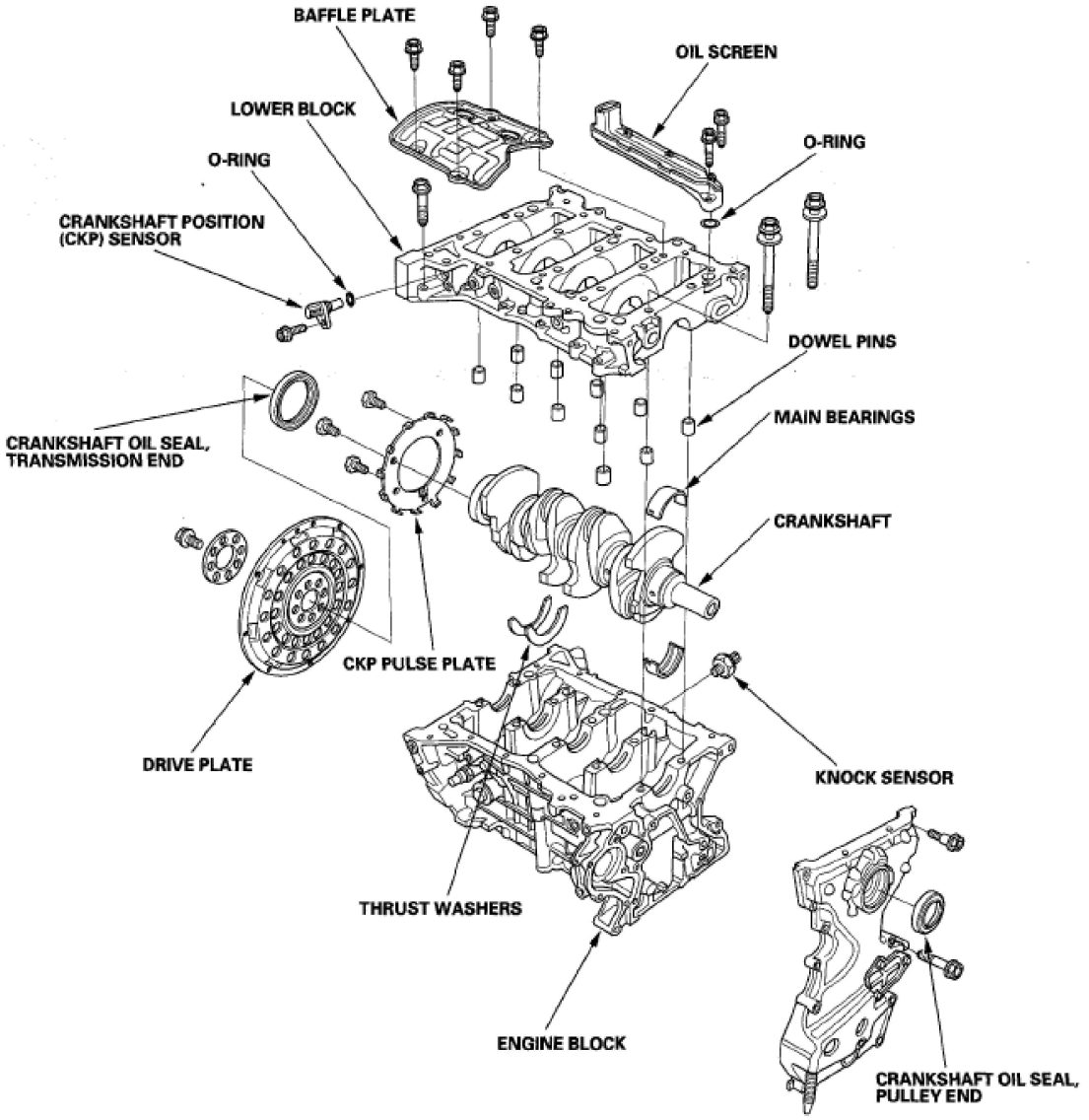

Fig. 1: Identifying Engine Block Component (1 Of 2)

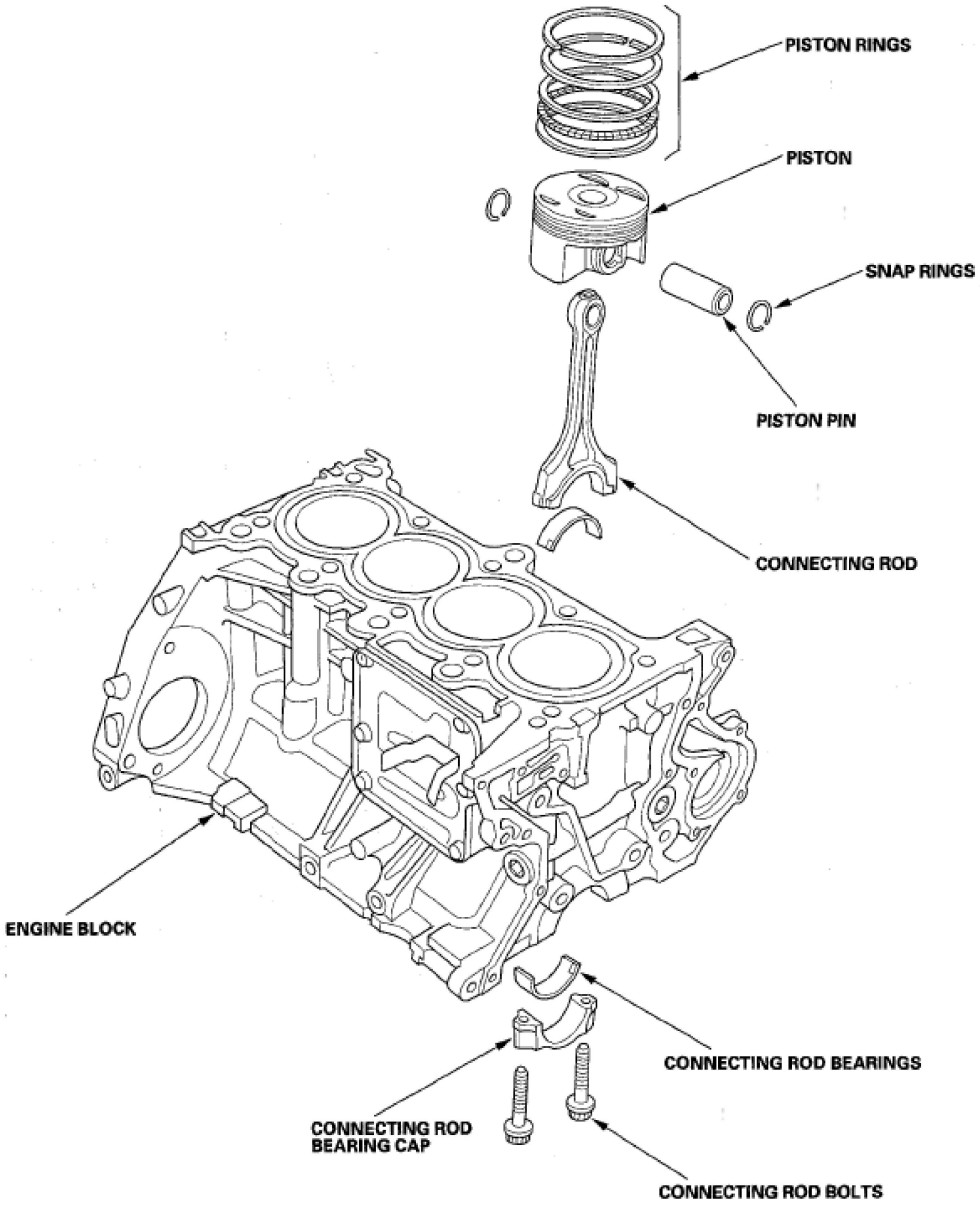

Fig. 2: Identifying Engine Block Component (2 Of 2)

PISTON RING REPLACEMENT

1. Remove the piston from the engine block, refer to the **CRANKSHAFT AND PISTON REMOVAL** .
2. Using a ring expander (A), remove the old piston rings (B).

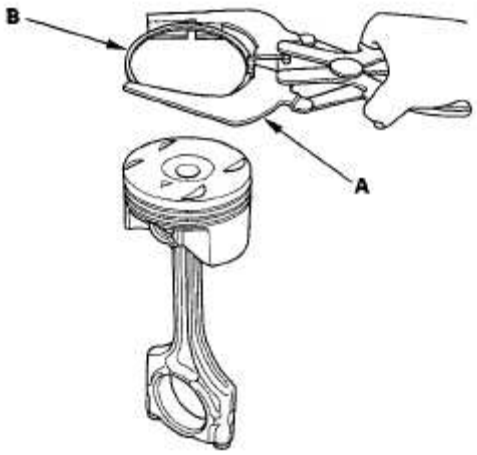

Fig. 3: Removing Piston Rings

3. Clean all the ring grooves thoroughly with a squared-off broken ring, or a ring groove cleaner with a blade to fit the piston grooves. File down a blade if necessary. The top ring and second ring grooves are 1.2 mm (0.05 in.) wide, and the oil ring groove is 2.0 mm (0.08 in.) wide. Do not use a wire brush to clean the ring grooves, or cut the ring grooves deeper with the cleaning tools.

NOTE: If the piston is to be separated from the connecting rod, do not install new rings yet.

4. Using a piston, push a new ring (A) into the cylinder bore 15-20 mm (0.6-0.8 in.) from the bottom.

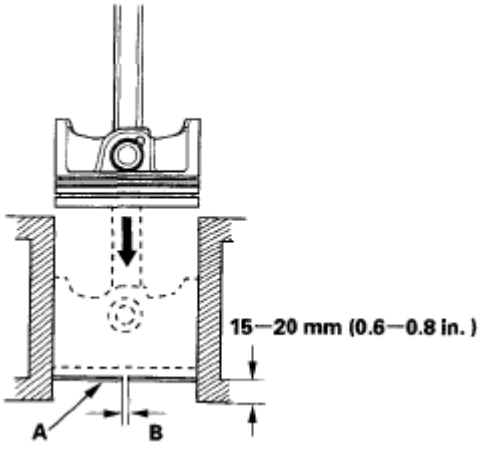

Fig. 4: Pushing Piston Rings

5. Measure the piston ring end-gap (B) with a feeler gauge:
   - If the gap is too small, check to see if you have the proper rings for your engine.
   - If the gap is too large, recheck the cylinder bore diameter against the wear limits, refer to the **BLOCK AND PISTON INSPECTION** . If the bore is beyond the service limit, the engine block must be rebored.

   Piston Ring End-Gap

   Top Ring:

   Standard (New): 0.20-0.35 mm (0.008-0.014 in.)

   Service Limit: 0.60 mm (0.024 in.)

   Second Ring:

   Standard (New): 0.40-0.55 mm (0.016-0.022 in.)

   Service Limit: 0.70 mm (0.028 in.)

   Oil Ring:

   Standard (New): 0.20-0.50 mm (0.008-0.020 in.)

   Service Limit: 0.70 mm (0.028 in.)

6. Install the rings as shown. The top ring (A) has a 1R mark, and the second ring (B) has a 2A or 2R mark. The manufacturing marks (C) must be facing upward.

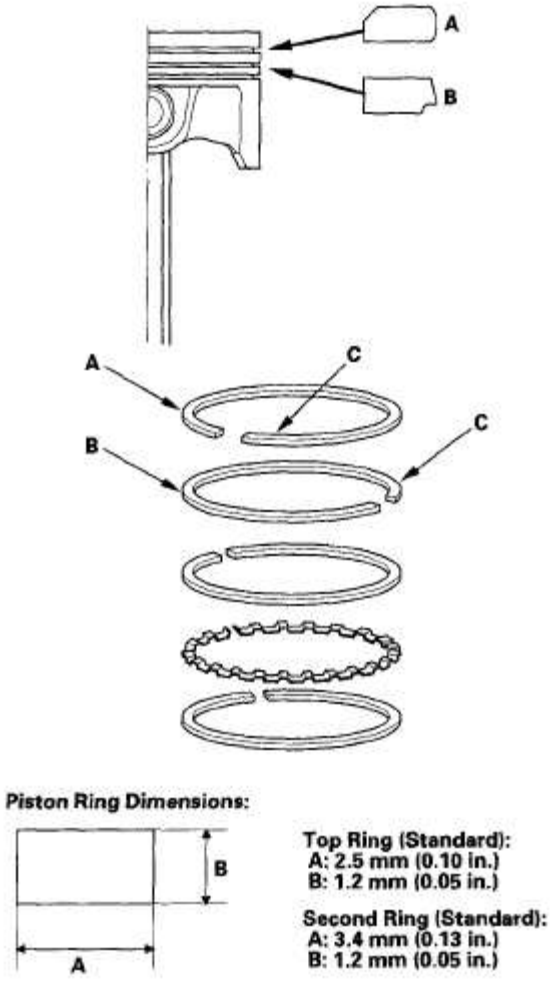

Fig. 5: Identifying Piston Rings With Installation

7. Rotate the rings in their grooves to make sure they do not bind.
8. Position the ring end gaps as shown:

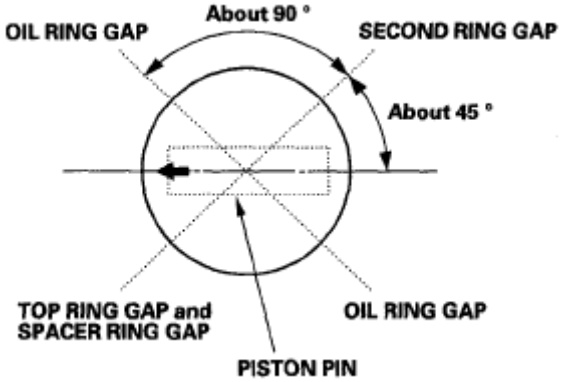

Fig. 6: Identifying Piston Ring End Gaps Angle

9. After installing a new set of rings, measure the ring-to-groove clearances:

   Top Ring Clearance

   Standard (New): 0.045-0.070 mm (0.0018-0.0028 in.)

   Service Limit: 0.13 mm (0.005 in.)

   Second Ring Clearance

   Standard (New): 0.030-0.055 mm (0.0012-0.0022 in.)

   Service Limit: 0.13 mm (0.005 in.)

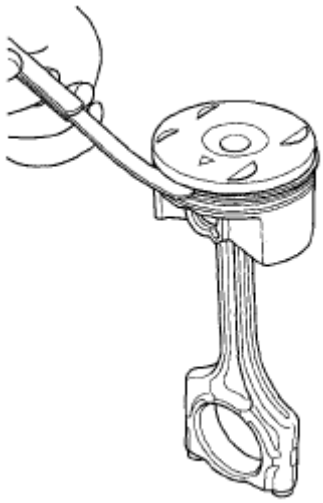

Fig. 7: Checking Top Ring Clearance